

IN THE SENATE OF THE UNITED STATES.

---

LETTER

FROM

THE ACTING SECRETARY OF WAR,

IN RESPONSE TO

*Senate resolution of January 30, 1895, transmitting the report of Maj. C. W. Raymond relative to the construction of a bridge over the Delaware River under authority of Congress.*

---

FEBRUARY 4, 1895.—Referred to the Committee on Commerce and ordered to be printed.

---

WAR DEPARTMENT,  
Washington, D. C., February 4, 1895.

SIR: In compliance with a resolution of the Senate, dated January 30, 1895, directing the Secretary of War to furnish a copy of the report made by Maj. C. W. Raymond, Corps of Engineers, relative to the construction of a bridge over the Delaware River under authority of Congress, I have the honor to transmit for the information of the Senate a letter from the Chief of Engineers, dated the 1st instant, inclosing a copy of the report of Major Raymond, dated January 29, 1895, upon the above-mentioned subject.

Very respectfully,

JOSEPH B. DOE,  
*Acting Secretary of War.*

THE PRESIDENT OF THE UNITED STATES SENATE.

---

OFFICE OF THE CHIEF OF ENGINEERS,  
UNITED STATES ARMY,  
Washington, D. C., February 1, 1895.

SIR: I have the honor to acknowledge receipt of resolution of the Senate of the United States directing the Secretary of War "to furnish the Senate with a copy of the report made by Major Raymond, Corps of Engineers, within the past day or two, relating to the construction of a bridge over the Delaware River, authorized by Congress."

In response to the reference of the resolution to this office, I have to submit the accompanying copy of the report mentioned, dated January 29, 1895.

The resolution of the Senate is herewith returned.

Very respectfully, your obedient servant,

THOS. LINCOLN CASEY,  
*Brig. Gen., Chief of Engineers.*

Hon. D. S. LAMONT,  
*Secretary of War.*

---

PROPOSED BRIDGE OVER THE DELAWARE RIVER TO CONNECT  
PHILADELPHIA AND NEW JERSEY.

UNITED STATES ENGINEER OFFICE,  
*Philadelphia, Pa., January 29, 1895.*

GENERAL: I have the honor to acknowledge the receipt of a pamphlet issued by the Trades League of Philadelphia, containing a copy of a letter from the league to the Secretary of War, dated January 15, 1895, inclosing "certain resolutions adopted unanimously at the monthly meeting of the board of directors of the Trades League, on January 10, 1895, respecting a proposed bridge over the Delaware River to connect Philadelphia and New Jersey, which the Pennsylvania and New Jersey Railroad contemplate erecting under authority of S. 1950." The pamphlet further contains descriptions, arguments, plans, newspaper editorials, and other information connected with the subject, as fully set forth in the table of contents. In compliance with instructions contained in your indorsement thereon, dated January 22, 1895, I have the honor to submit the following full report on this subject:

The resolutions of the board of directors of the Trades League protest against "various features in connection with the construction of the proposed bridge, and particularly against any bridge having a less clearance than 70 feet above mean high water," and provide for the appointment of a committee to present this protest to the Secretary of War.

The letter accompanying the resolutions asks the Secretary of War to fix a time for receiving and hearing a committee representing commercial interests at Philadelphia and New Jersey to support a request for the organization and meeting at Philadelphia of a "Board of United States expert engineers," to which the construction of this bridge may be referred.

For the present, these are the only points in the pamphlet which need be stated. After the history of this bridge project and the proceedings of this office in connection therewith have been fully set forth, it is proposed to give the whole paper elaborate attention.

A bill to authorize the construction of this bridge was introduced in the Senate on April 25, 1894, and was referred to me for early report by Department letter of April 26, 1894. This bill permitted the location of the bridge some distance below the present adopted location, and provided for a channel span of 500 feet with a clear head room at high water of 40 feet, a draw span with a clear waterway of 125 feet on each side of the pier, the length of the remaining spans not to be less than 300 feet.

In my report, submitted to the Department on April 28, 1894, I said:

The construction of bridge piers in the waterway of the Delaware River within the limits of the project for improving Philadelphia Harbor—that is, between Kaighn and Fishers points—would be very objectionable, as they would form obstructions to navigation and interfere with the maintenance of the channel. If the bridge is located above the limits of the improvement this objection will be obviated.

I accordingly recommended an amendment, which was adopted, and which fixed the location of the bridge at its present position, above Fishers Point. For reasons which will be stated fully hereafter, I did not recommend any change in the details of construction established by the bill.

The act authorizing the construction of this bridge was approved and became a law on June 14, 1894, and a copy was sent me for my information with Department letter dated June 20, 1894. In accordance with the provisions of the act, a plan of the bridge, and a detailed map showing the proposed site of the bridge with the river above and below it, were submitted by the Pennsylvania and New Jersey Railroad Company to the Secretary of War for his approval on August 30, 1894, and referred to me for report on September 1, 1894. On September 13, 1894, I returned them to the Department with the following report:

I respectfully recommend that the draw span be transferred to the south or New Jersey side of the channel span, making it the second span from the New Jersey shore, the clear height of the channel span above high water to be not less than 40 feet. With this change I recommend the approval of the plans.

Subsequently, at a conference with me upon the subject, the railroad company expressed their willingness to make the bridge considerably higher than the minimum height required by the act. They accordingly submitted to the Department, on October 11, 1894, a revised plan making the clear height of the channel span 50 feet instead of 40 feet above high water. This revised plan was referred to me for report on October 12, 1894.

While it was still under consideration I received, by reference from the Department, on October 12, 1894, a letter dated October 10, 1894, from Mr. Fred. Heron, general manager of the Phoenix Iron Company, to the Secretary of War, calling attention to "the largest draw span in the world," being 550-foot span, built by his company at Omaha, and strongly urging that a 550-foot span be required for the bridge across the Delaware at Philadelphia. Mr. Heron stated that a 300-foot draw-span is entirely too narrow to allow of full sized vessels passing through, making special objection in view of the contemplated project for a canal from the Delaware to New York Bay.

The revised plan, together with Mr. Heron's letter and its inclosure, were returned to the Department on October 19, 1894, with the following report:

The change in height is a benefit to navigation. The width of the draw span, which is 330 feet, is amply sufficient for the class of vessels which will navigate this part of the river, and will readily accommodate all the vessels which may pass through the proposed canal from New York to Philadelphia. I recommend the approval of the plan as herein modified.

This plan was duly approved by the Secretary of War, and I was notified thereof, and instructed to supervise the construction of the bridge, by Department letter dated November 5, 1894.

The act authorizing the construction of this bridge specifically requires that it shall be constructed with "a channel span of 500 feet in length, having a clear headroom at high water of 40 feet and a draw span with a clear waterway of 125 feet on each side of the pier, the length of each

of the remaining spans not to be less than 300 feet." The plans of the bridge as finally approved by the Secretary of War provide for channel and side spans of 540 feet, a clear headroom of 50 feet, and a clear waterway of 129.5 feet on each side of the draw. It will be observed that the adopted dimensions are all in excess of those required by the law. They are all more favorable for the navigation interests of the river. They could not have been required under the law. They were obtained simply by conference between the representatives of the bridge and myself, and were not suggested to me by any other person or persons. At the time they were agreed upon no objection of any kind whatever, formal or informal, verbal or written, to any part of the plan had ever been made known to me.

Returning to the resolutions of the board of directors of the Trades League, it will be noticed that they protest against "various features in connection with the construction of the proposed bridge, and particularly against any bridge having a less clearance than 70 feet above mean high water." What these various objectionable features are is nowhere clearly stated in the resolutions nor in the accompanying papers. After a very careful examination of the whole pamphlet, however, I have arrived at the conclusion that they desire an elevation above high water of at least 70 feet and an increase in width of passage-way on each side of the draw pier. It is true that in their argument they remark that "the added cost of uplifting the bridge can not be very great, and it may be fully compensated for, we think, by the additional safety and the possibility of higher speed for trains to be assured by the absence of a drawbridge;" and this statement apparently contemplates a bridge without a draw.

But such a bridge, at the elevation they propose, or at any other practicable height, would completely bar a very important part of the river traffic, and it is impossible to suppose that they intend to recommend any such construction. Elsewhere they repeatedly refer to the draw, showing that they consider it an essential feature of the bridge. In the letter of the committee they complain that "in the deep-water channel at the draw, where there is nearly 35 feet depth at low water, there are to be located within a distance of 355 feet piers aggregating 100 feet in width." I am not informed, and have no reason to believe, that the Trades League desires any changes in the plans other than those above indicated. The Board of Engineers which its committee desires to have organized is to consider and report upon these points. These dimensions are, however, definitely established by an act of Congress, and Congress alone has the authority to change them, the right to alter, amend, or repeal the act being expressly reserved. In my opinion the proper course for the Trades League to follow, if it desires a reconsideration of this subject, is to petition Congress and not the War Department.

On December 18, 1894, Mr. Walter Wood, chairman of the committee appointed under the resolutions of the league, called upon me at my office in relation to this subject. The whole situation was fully and carefully explained to Mr. Wood, and he was shown a copy of the act authorizing the construction of the bridge. At that time I had not seen the resolutions of the league or any of the papers connected therewith, and he did not show them to me. He was made fully aware that in my opinion the War Department had no power to consider the questions raised by him, and he was informed that if he had any doubt upon this point he could easily settle the question by a simple letter of inquiry to the Department. Mr. Wood presumably acquainted his committee

with this conversation, but this did not prevent the forwarding of the letter of the committee (dated January 15, 1895, but sent, according to the newspapers, on January 19) to the Secretary of War. It was published in the newspapers, and the sensational pamphlet which contains it was printed and circulated broadcast throughout the city. The object of the letter to the Department was not what it pretended to be, for Mr. Wood well knew that its request could not be granted. It was printed and circulated for general perusal and to produce a public effect among casual and uncritical readers.

The interview with Mr. Wood above referred to is the only communication I have had with the Trades League on this subject.

The letter of the committee, dated January 15, 1895, states that "facts can be presented which will show that great and irreparable injury to commercial and other interests of magnitude would be done by the erection of the bridge in accordance with the plans that have been approved by the War Department," and calls for the prevention of the infliction of a great wrong upon a large body of American citizens. The act as it finally became a law was recommended by me, and the charges implied in the above statements directly reflect upon my official action. It is therefore necessary for me to state fully the reasons for my recommendations.

The construction of a railroad bridge across the Delaware at or near the point established by the act is, I believe, considered by all to be highly desirable for the best interests of the city of Philadelphia. With reference to this point I have never heard a dissenting voice. Even the Trades League admits this. The construction of a single-span suspension or cantilever bridge high enough to permit the passage of masted vessels would not be justified by the traffic and would not be undertaken. If a bridge is to be constructed it must have piers in the river; and since the cost and difficulty of obtaining suitable grades prohibit an elevation great enough to pass all masted vessels, it must have a draw. I believe these points will not be disputed. With these assumptions, the main points to be considered were the location, clearance, width of channel and side spans, and width and location of the drawspan. These were to be determined with a view to the best interests of commerce, including the traffic across the bridge as well as that upon the waterway. It was fully recognized that the construction of any pier bridge over any navigable channel must, to some extent, be an obstruction to water navigation; and that a fair and reasonable adjustment must be made between the interests of land and water transportation. A brief statement of the character and extent of the navigation interests of this part of the Delaware River is therefore necessary.

As is well known to the Department, the physical character of the channel of the Delaware River changes at a point not far from Fishers Point. Below this point the normal channel depth at mean low water has been determined to be about 26 feet. Above it this depth is not greater than about 15 feet, and it steadily decreases as the river is ascended. Surveys and numerous investigations made by this office during the past ten years have shown that this upper part of the river can probably never be made of much more importance as a route of commerce than it is at the present time. The physical harbor of Philadelphia has, therefore, been considered to end at this point, and this is the upper limit of the existing projects for the improvement of Philadelphia Harbor and the Delaware River.

This part of the river is navigated by canal boats in tows moved by steamers, steam barges, and sailing vessels bound to and from the Del-



aware and Raritan Canal, six steam packets and a few smaller steamers plying between Philadelphia and the towns above it, one regular tow-boat, and occasionally by the three city ice boats. The sailing vessels, with the exception of occasional pleasure yachts and other very small craft, do not sail, but are moved by tugs. By far the greater number of these vessels can pass under a bridge with a clearance of 50 feet. The probable freight and passenger traffic over the bridge can not now be estimated, but it will doubtless be much greater than the traffic on the waterway.

The considerations upon which my recommendations were based were as follows:

*Location.*—I have insisted in this and other cases that the construction of a bridge with piers in the channel should not be permitted within the limits of the project for the improvement of the harbor. The location established upon my recommendation is just above these limits, at a point where the channel is remarkably permanent, and where there are no cross currents. Under the channel span and the span next the Philadelphia pier head line the channel depth will be increased to 26 feet below mean low water, and the railroad company has been instructed to construct the piers accordingly. I have heard no objection whatever to this location.

*Clearance.*—A height sufficient to permit the passage of masted vessels was impossible, since it would require grades to the approaches of the bridge which were prohibitory.

A height of 40 feet above high water would permit the passage of by far the larger number of vessels navigating the river. It would exclude the steam barges which have masts from 57 to 75 feet above the water, some of the steamers which have smoke stacks from 55 to 63 feet high, and the sailing vessels which have masts ranging from 80 feet upward. These vessels would have to pass through the draw. This was the height specified by the bill, and I recommended its approval principally on account of the character of the approaches to the bridge on the New Jersey side. The plan published in the pamphlet of the Trades League shows with sufficient accuracy the location of the main line and the two curves which form the connections with the bridge. With this arrangement a greater height of bridge required grades on the curved approaches which I consider inadmissible.

Subsequently it was found that, by carrying the approaches over the main line and making considerable detours before connecting therewith, it would be possible to raise the bridge to a height of 50 feet without requiring inadmissible grades. This height would facilitate the employment, by a number of steam vessels, of a simple and inexpensive arrangement for telescoping the upper parts of their smokestacks, whereby they could readily pass the bridge without going through the draw. As before stated, it was adopted by the company, recommended by me, and approved by the Department. It requires, on the north connection on the New Jersey side, a grade of 1 per cent, which, equated for curvature, is equal to 1.18 per cent, or 62.3 feet per mile. With this location of the approaches a greater height of the bridge would involve grades which ought not to be permitted.

It is possible that by giving the approaches much longer detours and constructing a long auxiliary line, or by relocating and reconstructing the main line in a position much farther back from the shore, grades could be obtained which would permit the elevation of the bridge to a height of 70 feet above high water, as demanded by the Trades League. Such an elevation would not permit the passage of

barges and sailing vessels which have masts ranging from 80 feet upward. It would permit the passage of a small number of steam vessels which, with a bridge elevation of 50 feet, would be compelled to telescope the upper parts of their stacks or pass through the draw. It would be of no benefit whatever to by far the greater part of the river traffic. This comparatively trifling advantage did not seem to me to justify the requirement of a height greater than 50 feet.

*Width of channel and side spans.*—Since the greater part of the river traffic will pass through these spans, it was considered desirable to have them of ample size. A width of 500 feet was recommended for the channel span, the width of the side spans being left to be established with the approval of the War Department, subject to the condition that it should not be less than 300 feet. As finally adopted each of these spans is 540 feet between centers and 519 feet between the faces of the piers.

*Width and location of the draw span.*—It was considered undesirable to give the draw span any greater width than is necessary to fully accommodate the vessels which will pass through it. A greater width would diminish the channel and side spans, which will be passed through by most of the river traffic, and would not diminish the number of piers between the pier-head lines. An increase in the size of the draw would involve an increase in the size of the draw pier and in the speed and safety of operating the draw especially during high winds. A clear waterway of 125 feet on each side of the pier seemed to me ample for any and all vessels navigating this part of the Delaware River, especially as the piers are located in the direction of the flow and there are no cross currents. The dimensions finally established were 129.5 feet between caissons, 134.58 feet between the piers just above the caissons, and 138.5 feet between the piers just below their coping. The location of the draw span was changed upon my recommendation to the deepest part of the channel, so as to facilitate the passage of the larger vessels, which will be generally those passing through the draw. The channel under the other spans will have ample depth, when completed, to accommodate all vessels which can pass under the bridge.

Finally in determining all these dimensions the conclusions arrived at by the permanent Board of Engineers, a Board composed of engineer officers of high rank and distinction, in a very celebrated case, that of the Arthur Kill Bridge, have received careful consideration.

The Arthur Kill is a waterway, connecting Raritan and Newark bays and separating Staten Island from New Jersey. The report of The Board of Engineers upon the plan and location of a bridge across it was submitted to the Department on September 2, 1886, and is published as Senate Ex. Doc. No. 17, Forty-ninth Congress, second session, and also in the Annual Report of the Chief of Engineers for 1887, page 2632.

All the traffic going from Philadelphia through the Delaware and Raritan Canal, which forms the greater part of the traffic of the upper Delaware, passes through the Arthur Kill, but according to the report of The Board, this constitutes only about one-sixth of the traffic through the Kill. The importance of this passage as a highway of commerce is vastly greater than that of the Upper Delaware, as will appear by reference to the tonnage map of the War Department. After a very careful analysis of the subject The Board recommended that the bridge should be constructed with a channel span having a clear opening of 450 feet, a drawspan having a clear opening of 125 feet, and a clear

height of 50 feet above mean high water. These recommendations were approved by the Department.

I trust that the above statements will enable the Department to form an opinion as to the wisdom of my official action in this case. I will add that during nearly five years I have been very closely associated with the commercial organizations of the city of Philadelphia directly concerned with the interests of water navigation, being the consulting engineer of the board of harbor commissioners and an honorary member of the Maritime Exchange. I attend all the meetings of the harbor commissioners and have had frequent consultations with the representatives of the Maritime Exchange and the board of port wardens. In all matters relating to the river or harbor, it has been my custom to furnish the fullest information to all reputable and honest inquirers, and all complaints have received careful attention. Although this bridge project was well known throughout the city, and although it was frequently the subject of conversation between the representatives of these organizations and myself, no objection to it or to any of its details was heard by me during the long period from its inception to the time when the plans were finally approved.

Up to the present time, I know of no objection on the part of the harbor commissioners, the board of port wardens, or the Maritime Exchange. The high intelligence of the members of these organizations precludes the explanation of this mysterious silence upon the hypothesis advanced by the Trades League that they supposed a law of the United States providing for the bridging of a navigable river between two States was subject to revision by the local boards of the city of Philadelphia. Even had they been capable of entertaining this opinion, the cordial relations existing between them and myself would have moved them to submit their objections to me before subjecting me to the humiliation of having my recommendations thus disapproved.

I will not attempt a thorough analysis of the remarkable pamphlet of the Trades League, but will simply invite attention to a few prominent points, upon which I will comment as they are stated.

The introduction to the resolutions of the board of directors, adopted January 10, 1895, contains the following direct or implied statements:

(1) That the height adopted for the bridge is insufficient for the free passage of large numbers of steamboats and other craft now using the river.

This is not true, if we leave out of consideration vessels which could not pass if the bridge were raised to 70 feet.

(2) That the United States Government is now expending large sums of money in bettering and deepening the channel in the vicinity of the proposed bridge.

This implies either that the bridge will interfere with the improvement or that the Government is engaged in the improvement of the river above the bridge so that it will accommodate a heavier traffic. Neither is true.

(3) That the passage of vessels through a draw is often aggravated by certain causes which lead to sailing vessels missing the draw at first trial.

This implies that vessels will sail through the draw. As before stated, vessels of sufficient size to use the draw do not sail on this part of the river, but are always towed.

(4) That riparian property above the bridge will be injured in value and unfitted for commercial purposes by the construction of the bridge.

However this may be, the value of riparian property can not be seriously



influenced by a question of elevation which affects merely the convenience of passage of a very small number of vessels.

(5) That the cost of raising the bridge to 70 feet would be insignificant as compared with the damages inflicted upon the commerce of the river and the losses in other values.

In my opinion, the cost would be very large and the benefit would be very small.

(6) That "the right of the people of this city, of this State, of New Jersey, and of the whole country to full enjoyment of all the natural advantages of a great river is incontestable."

If this were true, no bridge which in the slightest degree obstructed navigation could be built over any navigable river. In this particular case it means (if it means anything) that a small number of steamboat men have an incontestable right to compel all the rest of the people to travel over inconvenient or dangerous grades in order to save them from a trifling inconvenience.

I have already remarked upon the letter of the committee, so far as concerns its request for the organization of a Board of Engineers, to revise the action of Congress. It only remains for me to invite attention to the two disingenuous comparisons with which it is concluded.

The first is a comparison of the requirements for the proposed bridge over the North River at New York with those for the bridge over the Delaware at Philadelphia. It is pointed out (and emphasized by italics) that the New York bridge was required to have a clear height 150 feet above mean high water, with no pier or other obstruction in the river, while the Philadelphia bridge is required to have a height of only 50 feet, with four piers within a distance across the stream of 895 feet.

The writers of this letter well knew, when they made this comparison, that the two cases are utterly incomparable. They knew that one was the case of a bridge across the most important roadstead in the country, over a great anchorage as well as a great thoroughfare, where physical as well as commercial conditions absolutely prohibited the construction of a bridge with piers and a draw; while the other was the case of a bridge near the upper limit of a harbor, crossing no anchorage and covering a relatively unimportant traffic, where the conditions required a drawbridge with piers in the river. Nevertheless, they do not hesitate to make the comparison; and in another part of the pamphlet they publish extracts from the proceedings of the Senate with reference to the North River bridge, printing some of the remarks of a distinguished Senator in full-faced type, in order to intensify the false impression they desire to create.

The other comparison is a still more serious misrepresentation, because it involves the garbling of official records. They invite attention to the fact that on April 2, 1894, a bill (S. 1843) was presented to the Senate proposing a bridge across the Delaware at Philadelphia, and it was returned to the Senate from the Committee on Commerce with the following amendment:

*Provided, That no piers or other structures shall be constructed within the waterway of the Delaware River between the established pier-head lines: And provided further, That the bridge shall have a clear height of 150 feet above mean high water.*

They further state that on April 25, 1894, a wholly new and very different bill was presented "providing for a bridge across the Delaware at Philadelphia, and with a height of only 40 feet, and for five piers between the pier-head lines." (The italics are the committee's.)

The obvious intention of this comparison was to convey the impres-

sion that these two cases were exactly similar except in the requirements for the bridges; and for this purpose it was necessary to suppress the fact that the first bill authorized the construction of a bridge between the cities of Philadelphia and Camden, thus requiring it to cross the most important part of the harbor, while the second required the bridge to be located above the foot of Roxborough street and the shore end of the Fishers Point dike.

In my report of April 6, 1894, on the bill (S. 1843) authorizing the construction of a bridge between the cities of Philadelphia and Camden, I pointed out that such a bridge would necessarily cross the harbor within the limits of the Government improvement, and stated that the construction of a pier in this part of the harbor at any point between the established pier-head lines would form an obstruction to navigation and greatly interfere with the maintenance of the channel. The amendment presented by the Committee on Commerce was adopted upon my recommendation. The bridge site required by the other bill is considerably more than 3 miles farther up the river, and, as I have already explained, at a point where the physical and commercial interests are entirely different.

These two deliberate misrepresentations should suffice to stamp the whole pamphlet with its true character. Of course the writers did not suppose that the Department could be deceived by such methods; their object was simply to create a false impression upon an unsuspecting public through the medium of a letter to the Secretary of War, which they did not hesitate to print and circulate before it had received a reply.

Since I assumed charge of this engineer district, now nearly five years ago, the engineers of the War Department have received from nearly all the commercial organizations of the city of Philadelphia the most cordial and appreciative support in all their efforts to further the interests of navigation. This is especially true of the organizations directly concerned with water transportation. The one exception to this statement is the Trades League of Philadelphia. In the year after its organization, in 1891, this society commenced a series of persistent attacks upon the plans and methods followed by the War Department in conducting the Government improvements, and it has continued them to the present time.

The criticisms of the league have been sent to the War Department, to the president of the Harbor Line Board, to the city councils, to the mayor of the city, to the harbor commissioners, and to the public through the daily press. The representatives of the league have never endeavored to have any of their injurious statements verified before publication by inquiry at this office, although this is the only place where full and accurate information concerning the Government works can be obtained. They have preferred to support their conclusions upon ingenious misinterpretations of the published reports. Their object seems to be to create a feeling of distrust and to destroy the confidence of the public in the engineers of the Government. Their action has repeatedly threatened serious injury to the commercial interests of Philadelphia, an injury which has only been escaped through the conspicuous inaccuracy of their statements and their patent ignorance of the questions they discussed.

It is not easy to reconcile such a policy with the statement in the by-laws of the society that it is "organized for the purpose of improving the commerce, the business, and the manufacturing interests of the port and city of Philadelphia; to advocate and encourage any and all

measures that tend to benefit the business, the prosperity, or the convenience of the citizens of Philadelphia." Doubtless the great majority of the "1,700 firms, individuals, or corporations" which compose its membership are quite unconscious of the false position the organization has so long occupied through the action of a few. Until the present occasion I have not found it necessary to give any of the attacks referred to serious notice. The document which forms the subject of this report will serve as a moderate example of their general character.

The pamphlet of the Trades League of Philadelphia, referred to me for full report by your indorsement of the 22d instant, is herewith respectfully returned.

Very respectfully, your obedient servant,

C. W. RAYMOND,  
*Major, Corps of Engineers.*

Brig. Gen. THOMAS L. CASEY,  
*Chief of Engineers, U. S. A.*



